

U.S. Patent Application No. 09/996,516
Request for Reconsideration dated August 24, 2004
Reply to Office Action dated March 30, 2004

REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

Prior to discussing the rejection on its merits, page 1 of the Office Action indicates that claims 1-27 are pending in the application. However, claims 28 and 29 were never canceled; therefore, it appears that the Office Action includes a typographical error and the reference to claim 1-27 should read "claims 1-29." Appropriate correction is requested.

At page 2 of the Office Action, the Examiner rejects claims 16, 18-24, 26, and 27 under 35 U.S.C. §103(a) as being unpatentable over Sarkar et al. (U.S. Patent No. 5,501,770). The Examiner asserts that one skilled in the art would expect improved sizing using the process of Sarkar et al., since in Sarkar et al., the same papermaking sludge is treated with the same cellulytic enzyme of the claimed invention. For the following reasons, this rejection is respectfully traversed.

Claim 18 of the present application recites a method of improving sizing in a paper or paperboard product, including combining (1) a papermaking sludge with an enzyme composition to form an enzyme-treated sludge; (2) combining the enzyme-treated sludge with a papermaking pulp to form a treated pulp; and (3) forming a paper or paperboard product from the treated pulp, wherein the product has improved sizing compared to the sizing of an identical paper or paperboard product, but not having the sludge treated with the enzyme composition.

Sarkar et al. relates to enzymes in combination with polyelectrolytes for enhancing the freeness of clarified sludge in papermaking. Sarkar et al. merely takes the clarified sludge or old newsprint, treats it with an enzyme, and then takes this treated sludge and forms it into paper.

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Therefore, Sarkar et al. is clearly missing the step of adding the treated sludge to a papermaking pulp as recited in claim 18 of the present application.

Sarkar et al. merely shows a process for enhancing the freeness of clarified sludge and/or old newsprint. Thus, Sarkar et al. takes a cellulolytic enzyme and adds it to the sludge and/or old newsprint. While Sarkar et al. indicates that the sludge and/or old newsprint is considered "pulp," Sarkar et al. does not teach or suggest a separate step wherein the treated sludge is added to a papermaking pulp to form a treated pulp. In the claimed invention, the sludge is treated and not the papermaking furnish. Furthermore, preferably, in the claimed invention there would not be a change in the freeness of the overall papermaking furnish. Additionally, preferably, no retention aids are added to the sludge of the claimed invention.

It is important for the Examiner to appreciate that the method recited in claim 18 of the present application, preferably breaks the ASA (alkenyl succinic anhydride)-fiber bond in the sludge, so that the sludge can be used again in the papermaking furnish without negatively affecting the size of the furnish. In other words, the method recited in claim 18 of the present application, preferably does not break down the fibers or the size, but the bond between them. Accordingly, this rejection should be withdrawn.

At page 2 of the Office Action, the Examiner states that claims 14 and 25 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. §112, second paragraph, set forth in the Office Action. However, the Examiner never sets forth the reasons for rejecting claims 14 and 25 under 35 U.S.C. §112, second paragraph. According to page 1 of the Office Action, the Examiner objects to claims 14 and 25. Therefore, the applicants request the

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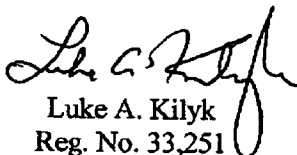
Examiner to clarify the rejection and/or objection of claims 14 and 25 under 35 U.S.C. §112, second paragraph.

CONCLUSION

In view of the foregoing remarks, the applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,


Luke A. Kilyk
Reg. No. 33,251

Atty. Docket No. 3597-127
KILYK & BOWERSOX, P.L.L.C.
53 A East Lee Street
Warrenton, VA 20186
Tel.: (540) 428-1701
Fax: (540) 428-1720